Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

CLAIMS

1. (currently amended) Apparatus for distribution of ~~digitized~~ image, of either still or motion type, and audio information to viewing locations comprising:

~~at least one central facility for receiving and compressing digitized image information according to a preselected format;~~

~~means for transferring resulting compressed image information to one or more remotely located presentation systems, each presentation system comprising:~~

means for independently receiving and storing compressed and encrypted image and audio ~~transferred image~~ information associated with at last one image program and at least one audio program for presentation at at least one preselected time;

means for independently distributing the stored ~~compressed~~ image and audio information to one or more ~~decompression systems~~ auditoriums;

means for independently decrypting ~~decompressing~~ the ~~transferred~~ stored image and audio information in each ~~decompression system~~ auditorium; ~~and~~

means for independently decompressing the stored image and audio information in each auditorium;

at least one projection system connected to receive the decrypted and decompressed image information and present ~~visual~~ one of the at least one images program ~~to one or more viewers based on said received information~~; and

at least one sound system connected to receive the decrypted and decompressed audio information and selectively play one of the at least one audio program in synchronization with the presented image program.

2. (Cancelled)

3. (Currently Amended) The apparatus of Claim 1 [[2]] wherein said compressed image and audio information are each stored in a non contiguous manner independent of each other.

4. (Currently Amended) The apparatus of Claim 1 wherein said ~~compressing of said digitized~~ image information ~~occurs~~ is compressed at a variable rate.

5. (Currently Amended) The apparatus of Claim 1 [[2]] wherein said ~~compressing of said digitized~~ audio information ~~occurs~~ is compressed at a variable rate.

6. (Currently Amended) The apparatus of Claim 1 [[2]] wherein said image and audio ~~compression of~~ information is compressed ~~performed~~ remotely ~~from the central facility~~.

7. (Currently Amended) The apparatus of Claim 1 [[2]] further comprising means for ~~compressing and transferring audio programs associated with image information segregated in time from an associated image~~ using an identifier to ~~allow~~ link~~ing of~~ one or more preselected audio programs with at least one preselected image program as desired at presentation.

B1 Cont

8. (Currently Amended) The apparatus of Claim 7 wherein each of said audio programs comprises multiple audio tracks to be presented with the same image program during different presentation events.

9. (Currently Amended) The apparatus of Claim 136 [[1]] further comprising a digital image generation system for generating the digitized image~~s in digital format~~.

10. (Original) The apparatus of Claim 9 wherein said generation system comprises a digital camera.

11. (Currently Amended) The apparatus of Claim 10 wherein the image[[s]] programs from said digital camera are captured, encrypted, compressed and broadcast in real time to preselected authorized presentation systems by said central facility substantially contemporaneous with digitizing of images.

12. (Original) The apparatus of Claim 9 wherein said generation system comprises a Telecine device.

13. (Orignial) The apparatus of Claim 9 wherein said generation system comprises a computer based workstation.

14. (Currently Amended) The apparatus of Claim 1 [[2]] further comprising means for storing the compressed and encrypted image and audio information in a ~~said~~ central ~~facility~~ storage system for transfer at a later predetermined time.

15. (Cancelled)

16. (Currently Amended) The apparatus of Claim 1 [[15]] further comprising means for ~~providing~~ receiving cryptographic key information necessary for decryption of the image and audio information ~~to authorized presentation systems~~ at a separate time from receiving the compressed and encrypted information ~~itself~~.

B1 Cont.

17. (Currently Amended) The apparatus of Claim 16 [[15]] further comprising means for storing and transporting said cryptographic key information necessary for decryption to authorized ~~presentation systems~~ auditoriums at a time separate from distributing the compressed and ~~transfer of~~ encrypted image and audio information.

18. (Currently Amended) The apparatus of Claim 17 further comprising means for ~~indicating~~ receiving a time interval over which said cryptographic key information is valid and for assuring that said key is only used during ~~that~~ the indicated time interval.

19. (Original) The apparatus of Claim 18 further comprising means for overwriting said cryptographic key information in a storage location after said time interval expires.

20. (Currently Amended) The apparatus of Claim 1 [[2]] further comprising means for ~~adding~~ receiving at least one watermark which is perceptually unnoticeable during presentation of ~~decompressed~~ the image or audio ~~information~~ program at a predefined normal rate of transfer, but is detectable when said image or audio ~~information~~ program is presented at a rate substantially different from said normal rate.

21. (Currently Amended) The apparatus of Claim 20 wherein said watermark identifies both presentation time and location for the image or audio program ~~information~~.

22. (Currently Amended) The apparatus of Claim 136 [[2]] further comprising a modulation and transmission system for establishing a wireless communication link over which encrypted and compressed information is transferred between said central facility and presentation systems.

23. (Currently Amended) The apparatus of Claim 22 wherein said means for transferring comprises means for broadcasting of said ~~compressed~~ information to any one or more of [[a]] the plurality of auditoriums to allow multiple presentations of ~~information~~ said image program in different auditoriums at the same time.

B' Cont.

24. (Currently Amended) The apparatus of Claim 22 wherein a transmission bit rate of said compressed information is not equal to a bit rate at which said information is compressed.

25. (Currently Amended) The apparatus of Claim 22 wherein a transmission bit rate of said compressed information is equal to a bit rate at which said information is compressed.

26. (Currently Amended) The apparatus of Claim 22 wherein additional checksum information is appended to said transferred ~~compressed~~ information so as to allow detection of blocks of transmitted information in which transmission errors occur.

27. (Currently Amended) The apparatus of Claim 22 wherein said means for transferring comprises at least one satellite.

28. (Original) The apparatus of Claim 27 further comprising at least one collocated satellite receiver terminal at said central facility for monitoring quality of a satellite channel used for transferring compressed information so as to allow adjustments in transfer characteristics of said satellite channel to maintain a desired level of quality.

29. (Currently Amended) The apparatus of Claim 136 [[2]] further comprising a two-way transfer link disposed between said central facility and presentation systems over which data is exchanged.

30. (Original) The apparatus of Claim 29 wherein said data comprises data used for cryptographic security purposes

31. (Currently Amended) The apparatus of Claim 29 wherein said data comprises data used to request re-transmission of ~~compressed~~ information received at said presentation system with errors.

32. (Currently Amended) The apparatus of Claim 31 further comprising means for re-transmitting ~~compressed~~ information having been received at said presentation system with errors over said two-way link.

B' cont.

33. (Original) The apparatus of Claim 29 wherein said data comprises various monitor and control inputs and commands transferred between said central facility and presentation systems.

34. (Original) The apparatus of Claim 29 wherein said two-way link comprises a dedicated telephone data link.

35. (Original) The apparatus of Claim 29 wherein said two-way link comprises a dialup telephone data link.

36. (Original) The apparatus of Claim 29 wherein said two-way link comprises a packet type data link.

37. (Original) The apparatus of Claim 29 wherein said two-way link comprises an Internet based link.

38. (Original) The apparatus of Claim 29 wherein said two-way link comprises a wireless data link.

39. (Original) The apparatus of Claim 29 wherein said two-way link comprises a satellite based data link.

40. (Currently Amended) The apparatus of Claim 136 [[1]] further comprising a network management system for managing a network of presentation systems to present images for viewing at authorized times and locations.

41. (Original) The apparatus of Claim 40 wherein said network management system provides operational control of each presentation system.

42. (Cancelled)

B' cont.

43. (Currently Amended) The apparatus of Claim 1 [[42]] wherein the compressed and encrypted audio and image information is broadcast to pre-selected auditoriums ~~within a multiplicity of auditoriums in a theater complex~~ at a given time.

44. (Currently Amended) The apparatus of Claim 43 [[42]] further comprising at least one decoder/decrypter integrated into each image projector~~or~~ion system within ~~said~~ each auditorium to prevent wiretapping and copying of the audio and image information~~images~~.

45. (Currently Amended) The apparatus of Claim 44 further comprising means for detecting physical intrusion into a projection system within each ~~for an~~ auditorium ~~system~~ and for ~~erasure~~ erasing of decryption key information whenever such an intrusion is detected.

46. (Currently Amended) The apparatus of Claim 1 [[14]] wherein said means for distributing ~~at least one theater comprises a complex of multiple auditoriums and said means for storing compressed image and audio information~~ is configured to ~~transfer~~ distribute compressed and encrypted image and audio information ~~of~~ for a single image program to

different ones of said auditoriums with preselected programmable offsets in time relative to each other.

47. (Original) The apparatus of Claim 46 wherein said preselected programmable offsets are substantially zero so that said single image program is presented to different ones of said auditoriums substantially simultaneously.

48. (Currently Amended) The apparatus of Claim 1 [[42]] further comprising a central theater storage system for storing compressed and encrypted image and audio information which is to be used for creating presentation events at one or more auditoriums.

49. (Original) The apparatus of Claim 48 wherein said central theater storage system comprises a data storage bank shared by multiple auditoriums.

B' bank.

50. (Original) The apparatus of Claim 49 wherein said data storage bank comprises an array of magnetic media storage devices.

51. (Currently Amended) The apparatus of Claim 50 wherein said array of storage devices comprises means for using parity information to link different preselected portions of compressed and encrypted image and audio information to different ones of said storage devices during storage and to a single auditorium ~~presentation~~ at retrieval.

52. (Original) The apparatus of Claim 50 wherein said central theater storage system comprises means for parallel "striping" of received information across said array of storage devices to provide a desired data transfer rate and error protection redundancy.

53. (Currently Amended) The apparatus of Claim 50 further comprising means for storing a viewing history of authorized image programs presented in each ~~said~~ auditorium and for reporting said history to a ~~said~~ central facility.

54. (Original) The apparatus of Claim 40 further comprising a theater management system for operational control and monitoring of auditoriums within a theater complex.

55. (Original) The apparatus of Claim 54 wherein said theater management system further comprises program control means for creating program sets from one or more received individual image and audio programs, which are scheduled for presentation on an auditorium system during an authorized interval.

56. (Cancelled)

57. (Cancelled)

58. (Cancelled)

59. (Currently Amended) The apparatus of Claim 1 [[54]] further comprising a local theater network system for distributing stored information to one or more of a multiplicity of auditoriums ~~locations for presentation to an audience~~.

B1 cont.

60. (Original) The apparatus of Claim 59 comprising at least one local area network interface.

61. (Currently Amended) The apparatus of claim 1 [[2]] wherein the image information is provided in the form of image programs which are in the form of either a single still frame or series of frames shown as motion pictures of varying length.

62. (Currently Amended) The apparatus of Claim 136 [[2]] wherein said means for transferring comprises at least one optical fiber network.

63. (Currently Amended) The apparatus of Claim 136 [[2]] wherein said means for transferring comprises at least one high speed wireline based network.

64. (Currently Amended) The apparatus of Claim 136 [[2]] wherein said means for transferring comprises means for wireless broadcast of signals containing said encrypted and compressed image and audio information.

65. (Currently Amended) The apparatus of Claim 136 [[2]] wherein said means for transferring comprises:

means for storing encrypted and compressed ~~digital~~ information in said central facility; and

means for retrieving said stored information onto a transportable storage medium for physical distribution to said presentation systems; ~~and~~

~~means for retrieving said stored information on said medium and transferring it to said presentation system storage~~

66. (Original) The apparatus of Claim 65 wherein said medium comprises optical storage medium.

67. (Original) The apparatus of Claim 65 wherein said medium comprises magnetic storage medium.

B1 Cont.

68. (Original) The apparatus of Claim 65 further comprising means for archiving said medium at said central facility.

69. (Original) The apparatus of Claim 65 further comprising means for archiving said medium at said presentation system.

70. (Currently Amended) A method for distribution of ~~digitized~~ image, of either still or motion type, and audio information to viewing locations comprising:

~~receiving and compressing said digitized image information according to a preselected format at at least one central facility;~~

~~transferring resulting compressed image information to one or more remotely located presentation systems;~~

independently receiving and storing compressed and encrypted image and audio ~~transferred image~~ information associated with at last one image program and at least one audio program for presentation at at least one preselected time at each auditorium ~~presentation system~~;

independently distributing the stored ~~compressed~~ image and audio information to one or more ~~decompression systems~~ auditoriums;

independently decrypting and decompressing the stored ~~transferred~~ image and audio information in each ~~decompression system~~ auditorium; ~~and~~

receiving the decrypted and decompressed image information at at least one connected projection system and presenting ~~visual~~ one of the at least one images program ~~to one or more viewers based on said received information~~; and

receiving the decrypted and decompressed audio information and selectively playing one of the at least one audio program in synchronization with the presented image program.

71. (Cancelled)

72. (Currently Amended) The method of Claim 70 [[71]] further comprising storing said compressed image and audio information in a non contiguous manner independent of each other.

B1 cont.

73. (Currently Amended) The method of Claim 70 wherein said ~~step of compressing said digitized~~ image information ~~occurs~~ is compressed at a variable rate.

74. (Currently Amended) The method of Claim 70 wherein said ~~step of compressing said digitized~~ audio information ~~occurs~~ is compressed at a variable rate.

75. (Currently Amended) The method of Claim 70 wherein said image and audio ~~step of compressing~~ information is compressed ~~performed~~ remotely ~~from the central facility~~.

76. (Currently Amended) The method of Claim 70 [[71]] further comprising ~~compressing and transferring audio programs associated with image information segregated in time from an associated image~~ using an identifier to ~~allow~~ link~~ing of~~ one or more preselected audio programs with at least one preselected image program as desired at presentation.

77. (Currently Amended) The method of Claim 76 wherein each of said audio programs comprises multiple audio tracks to be presented with the same image program during different presentation events.

78. (Currently Amended) The method of Claim 143 [[70]] further comprising generating the digitized images ~~in digital format~~ using a digital image generation system.

79. (Currently Amended) The method of Claim 78 comprising using a digital camera for said generating.

80. (Currently Amended) The method of Claim 79 further comprising capturing, encrypting, compressing and broadcasting the digitized images from said digital camera to preselected authorized presentation systems through said central facility substantially contemporaneous with digitizing of images.

81. (Currently Amended) The method of Claim 78 comprising using a computer based workstation for said generating.

82. (Currently Amended) The method of Claim 70 [[71]] further comprising storing the compressed and encrypted image and audio information in ~~said~~ a central ~~facility~~ storage system for transfer at a later predetermined time.

83. (Cancelled)

84. (Currently Amended) The method of Claim 70 [[83]] further comprising ~~storing and transporting~~ receiving cryptographic key information necessary for decryption to authorized ~~presentation systems~~ auditoriums at a time separate from said receiving ~~transfer~~ of the encrypted and compressed information.

85. (Currently Amended) The apparatus of Claim 83 further comprising receiving ~~indicating~~ a time interval over which said cryptographic key information is valid and assuring that said key is only used during that interval.

86. (Original) The apparatus of Claim 85 further comprising overwriting said cryptographic key information in a storage location after said time interval expires.

87. (Currently Amended) The method of Claim 70 [[71]] further comprising receiving ~~adding~~ at least one watermark which is perceptually unnoticeable during presentation of ~~decompressed~~ the image or audio program ~~information~~ at a predefined normal rate of transfer, but is detectable when said image or audio program ~~information~~ is presented at a rate substantially different from said normal rate.

88. (Currently Amended) The method of Claim 87 wherein ~~comprising configuring~~ said watermark [[to]] identif~~y~~ies both a presentation time and a location for the image or audio program ~~information~~.

89. (Currently Amended) The method of Claim 143 [[71]] further comprising modulating and transmitting the encrypted and compressed information over a wireless communication link between said central facility and presentation systems.

90. (Currently Amended) The method of Claim 89 comprising broadcasting said encrypted and compressed information to any one or more of a plurality of theater auditoriums to allow multiple presentations of said image program ~~information~~ in different auditoriums at the same time.

91. (Original) The method of Claim 89 comprising using a transmission bit rate for compressed information that is not equal to a bit rate at which said information is compressed.

92. (Original) The method of Claim 89 comprising using a transmission bit rate for compressed information is equal to a bit rate at which said information is compressed.

93. (Currently Amended) The method of Claim 89 comprising appending checksum information ~~is appended~~ to said transferred ~~compressed~~ information so as to allow detection of blocks of transmitted information in which transmission errors occur.

94. (Currently Amended) The method of Claim 89 comprising using at least one satellite for transferring the information ~~signals~~ to said presentation systems.

95. (Original) The method of Claim 94 further comprising collocating at least one satellite receiver terminal at said central facility and monitoring quality of a satellite channel used for transferring compressed information therewith, so as to allow adjusting transfer characteristics of said satellite channel to maintain a desired level of quality.

96. (Currently Amended) The method of Claim 136 [[71]] further comprising exchanging data over a two-way transfer link disposed between said central facility and presentation systems.

B1 cont.

97. (Original) The method of Claim 96 comprising using said data for cryptographic security purposes

98. (Currently Amended) The method of Claim 96 requesting re-transmission of ~~compressed~~ information received at said presentation system with errors.

99. (Currently Amended) The method of Claim 98 further comprising re-transmitting ~~compressed~~ information having been received at said presentation system with errors over said two-way link.

100. (Original) The method of Claim 96 wherein said data comprises various monitor and control inputs and commands transferred between said central facility and presentation systems.

101. (Original) The method of Claim 96 comprising using a dedicated telephone data link as said two-way link.

102. (Original) The method of Claim 96 comprising using a dialup telephone data link as said two-way link.

103. (Currently Amended) The method of Claim 96 comprising using a packet type data link as said two-way link ~~comprises~~.

104. (Original) The method of Claim 96 comprising using an Internet based link as said two-way link.

105. (Original) The method of Claim 96 comprising using a wireless data link as said two-way link.

106. (Original) The method of Claim 96 comprising using a satellite based data link as said two-way link.

B1 cont.

107. (Original) The method of Claim 70 further comprising a network management system for managing a network of presentation systems to present images for viewing at authorized times and locations.

108. (Original) The method of Claim 107 wherein said network management system provides operational control of each presentation system.

109. (Currently Amended) The method of Claim 70 [[71]] comprising configuring each presentation system as a theater with at least one auditorium.

110. (Currently Amended) The method of Claim 109 comprising broadcasting ~~compressed~~ information to pre-selected auditoriums within a multiplicity of presentation systems ~~auditoriums in a theater complex~~ at a given time.

111. (Currently Amended) The method of Claim 109 further comprising integrating at least one decoder/decrypter into each image projector within each ~~said~~ auditorium to prevent wiretapping and copying ~~of images~~.

112. (Original) The method of Claim 111 further comprising detecting physical intrusion into a projection system for an auditorium system and for erasure of decryption key information whenever such an intrusion is detected.

113. (Currently Amended) The method of Claim 82 further comprising transferring compressed and encrypted image and audio information for [[of]] a single image program ~~from said central storage system~~ to different ones of said auditoriums in a complex of multiple auditoriums in a theater with preselected programmable offsets in time relative to each other.

B1 cont.

114. (Original) The method of Claim 113 comprising reducing said preselected programmable offsets to be substantially zero so that said single image program is presented to different ones of said auditoriums substantially simultaneously.

115. (Currently Amended) The method of Claim 109 further storing compressed and encrypted image and audio information which is to be used for creating presentation events at one or more auditoriums in a central theater storage system.

116. (Original) The method of Claim 115 comprising using an array of magnetic media storage devices as said central theater storage system.

117. (Currently Amended) The method of Claim 116 comprising using parity information to link different preselected portions of encrypted and compressed image and audio information to different ones of said devices during storage and to a single auditorium ~~presentation~~ at retrieval.

118. (Original) The method of Claim 116 comprising parallel "striping" of received information across said array of storage devices to provide a desired data transfer rate and error protection redundancy.

119. (Currently Amended) The method of Claim 116 further comprising storing a viewing history of authorized image program[[s]] presented in each ~~said~~ auditorium and reporting said history to a ~~said~~ central facility.

120. (Currently Amended) The method of Claim 109 [[107]] further comprising controlling the operation of and monitoring of auditoriums within a theater complex using a theater management system.

121. (Original) The method of Claim 120 further comprising creating program sets within said theater management system from one or more received individual image and audio programs, which are scheduled for presentation on an auditorium system during an authorized interval.

B1 cont.

122. (Cancelled)

123. (Original) The method of Claim 120 further comprising automatically distributing, storing, and presenting programs under programmable control from a control element remote from said central facility

124. (Original) The method of Claim 120 further comprising controlling certain preselected network operations from a location remote from said central facility.

125. (Currently Amended) The method of Claim 120 further comprising [[for]] distributing stored information to one or more of a multiplicity of auditorium locations for presentation to an audience over a local theater network system.

126. (Currently Amended) The method of claim 70 [[71]] further comprising providing image information in the form of image programs which are in the form of either a single still frame or series of frames shown as motion pictures of varying length.

127. (Currently Amended) The method of Claim 143 [[71]] wherein said transferring ~~step~~ comprises using at least one optical fiber network.

128. (Currently Amended) The method of Claim 143 [[71]] wherein said transferring ~~step~~ comprises using at least one high speed wireline based network.

129. (Currently Amended) The method of Claim 143 [[71]] wherein said transferring ~~step~~ comprises:
storing encrypted and compressed ~~digital~~ information in said central facility;
retrieving said stored information onto a transportable storage medium for physical distribution to said presentation systems; and
retrieving said stored information on said medium and transferring it to said presentation system storage

B1 cont.

130. (Original) The method of Claim 129 wherein said medium comprises optical storage medium.

131. (Original) The method of Claim 129 wherein said medium comprises magnetic storage medium.

132. (Original) The method s of Claim 129 further comprising archiving said medium at said central facility

133. (Original) The method of Claim 129 further comprising archiving said medium at said presentation system.

134. (Currently Amended) The method of Claim 143 [[71]] wherein said transferring step comprises using at least one high speed wireline based network.

135. (Currently Amended) The method of Claim 143 [[71]] comprising employing redundancy in said central facility and presentation systems for preselected functions for assuring reliable operation in a variety of anticipated operating situations.

136. (New) Apparatus for distribution of digitized image, of either still or motion type, and audio information to viewing locations comprising:

at least one central facility for independently receiving and storing digitized image and audio information;

means for independently encrypting the digitized image and audio information;

means for independently compressing the encrypted image and audio information;

means for independently transferring the compressed and encrypted image and audio information to one or more remotely located presentation systems, each presentation system comprising a plurality of auditoriums.

B1 Cont.

137. (New) The apparatus of Claim 136 further comprising means for providing cryptographic key information necessary for decryption of information to authorized presentation systems at a separate time from said transferring the compressed and encrypted information.

138. (New) The apparatus of Claim 137 further comprising means for storing and transporting said cryptographic key information.

139. (New) The apparatus of Claim 138 further comprising means for indicating a time interval over which said cryptographic key information is valid and for assuring that said key is only used during the indicated time interval.

140. (New) The apparatus of Claim 139 further comprising means for overwriting said cryptographic key information in a storage location after said time interval expires.

141. (New) The apparatus of Claim 136 further comprising means for adding at least one watermark which is perceptually unnoticeable during presentation of the image or audio

program at a predefined normal rate of transfer, but is detectable when said image or audio program is presented at a rate substantially different from said normal rate.

142. (New) The apparatus of Claim 20 wherein said watermark identifies both presentation time and location for the image or audio program.

143. (New) A method for distribution of digitized image, of either still or motion type, and audio information to viewing locations comprising:

independently receiving and storing digitized image and audio information;

independently encrypting the digitized image and audio information;

independently compressing the encrypted image and audio information;

independently transferring the compressed and encrypted image and audio information to one or more remotely located presentation systems, each presentation system comprising a plurality of auditoriums.

B1 Cont.

144. (New) The method of Claim 143 further comprising storing compressed and encrypted image and audio information in said central facility for transfer at a later predetermined time.

145. (New) The method of Claim 143 further comprising encrypting said information at said central facility and decrypting resulting encrypted information at said presentation system.

146. (New) The method of Claim 145 further comprising storing and transporting cryptographic key information necessary for decryption to authorized presentation systems at a time separate from said transferring of the encrypted and compressed information.

147. (New) The method of Claim 145 further comprising indicating a time interval over which said cryptographic key information is valid and assuring that said key is only used during that interval.

148. (New) The method of Claim 147 further comprising overwriting said cryptographic key information in a storage location after said time interval expires.

B' cont'd.

149. (New) The method of Claim 143 further comprising adding at least one watermark which is perceptually unnoticeable during presentation of image or audio program at a predefined normal rate of transfer, but is detectable when said image or audio program is presented at a rate substantially different from said normal rate.

150. (New) The method of Claim 149 further comprising configuring said watermark to identify both a presentation time and a location for the image or audio program.